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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/707,624	11/07/2000	Kenneth J. Overton	4904.2-4	9914

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EXAMINER

DESIR, JEAN WICEL

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/707,624	Applicant(s) OVERTON ET AL.	
	Examiner Jean W. Désir	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-16 is/are allowed.
- 6) ☒ Claim(s) 17-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 17-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Kreitman et al (US 5,491,517).

Claim 17:

Kreitman discloses:

“receiving a stream of original images taken by a camera of a real site; for each original image in the image stream”, see Fig. 1 item 10;

“identifying a background area within the original image from at least on target area in which a target image will be inserted”, see Fig. 5 items 60, BACKGROUND MASK;

“rendering, for each at least one target, a target image based on at least a predefined three-dimensional model of the at least one target area within the site and camera’s position and pointing direction, the three-dimensional model being of less than the entire site”, see Fig. 5 items 62, 64, Fig. 2, Fig. 21, col. 13 lines 26-51, col. 14 lines 45-55;

“identifying occlusions within the at least one target area of the original image”,
see Fig. 5 items 60, 62, Figs. 3, 4A-4C;

“and combining the background of the original image, the at least one target
image, and the image of the occlusions into an output image”, see Fig. 5 item 66, Fig. 1
item 14.

Claim 18 is disclosed, see Fig. 5 item 60, Fig. 21.

Claim 19 is disclosed, see Fig. 21, col. 13 lines 26-51.

Claims 20-22 are disclosed, see col. 13 lines 26-55, Fig. 21.

Claims 23-25 are disclosed, see 13 lines 37-53, col. 3 lines 33-40.

Claim 26 is disclosed, see Fig. 22, col. 14 lines 27-67.

Claim 27 is disclosed, see Fig. 21, col. 3 lines 33-40.

Claim 28:

Kreitman discloses:

“a model renderer for generating, a synthetic image based on a predefined three-
dimensional reference model including a target area within a site from a known position
of a camera, the three-dimensional model being of less than the entire, the synthetic
image having a target image inserted in the target area”, see Fig. 5 items 62, 64, Fig. 2,
Fig. 21, col. 13 lines 26-51, col. 14 lines 45-55;

“an image separator for masking from a video image contained within a frame of
a video signal generated by the camera, the target area to create a masked background
image”, see Fig. 5 items 60, BACKGROUND MASK;

“and image combiner for combining the masked background image with the target image”, see Fig. 5 item 66.

Claim 29:

“a second model renderer ...” is also disclosed, because of the repetition of the process of the system of Kreitman, and also Fig. 5 items 62, 64, Fig. 2, Fig. 21, col. 13 lines 26-51, col. 14 lines 45-55;

“an occlusion separator ...” is disclosed, see Fig. 5 items 60, 62, Figs. 3, 4A-4C;

“wherein the combiner further combines the image of the occlusions with the masked background and the target image” is disclosed, see Fig. 5 item 66, Fig. 1 item 14.

Allowable Subject Matter

3. Claims 1-16 are allowed.

Response to Arguments

4. Applicant's arguments have been fully considered but they are not persuasive.

Applicants argue on pages 9 and 10 of the Remarks that “there is no mention by Kreitman of a 3-dimensional model of a site in which the camera is situated”.

These arguments are not persuasive; the claimed invention is directed to a target image (or a synthetic image) based on a predefined three-dimensional reference model, as claimed in claims 17-29; the target image or the synthetic image is based on a predefined three-dimensional (3-D) reference model as claimed, because the camera

(30 of Fig. 2) is pointed to a site which is a tennis game; the tennis game is based on a 3-D reference model of a real field (site) where the game is taking place; therefore, even though Kreitman does not mention 3-D model as claimed, it is inherent to the Kreitman's disclosure. Therefore, contrary to the Applicants' arguments, the rejection is not in error and it is maintained before the Office.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean W. Désir whose telephone number is (571) 272 7344. The examiner can normally be reached on 5/4/9 - First Friday Off.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272 7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

Oct. 31, 05


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600